IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ON SEMICONDUCTOR CORP. and SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC, Plaintiffs, v. SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC., SAMSUNG TELECOMMUNICATIONS AMERICA GENERAL, L.L.C., SAMSUNG SEMICONDUCTOR, INC., and SAMSUNG AUSTIN SEMICONDUCTOR L.L.C., Defendants.	C.A. No. 07-449 (JJF) **REDACTED PUBLIC VERSION**
SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC., SAMSUNG TELECOMMUNICATIONS AMERICA GENERAL, L.L.C., SAMSUNG SEMICONDUCTOR, INC., and SAMSUNG AUSTIN SEMICONDUCTOR L.L.C., Plaintiffs, v. ON SEMICONDUCTOR CORP. and SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC, Defendants.	C.A. No. 06-720 (JJF)

REPLY BRIEF OF ON SEMICONDUCTOR CORP. AND SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC IN SUPPORT OF THEIR MOTION TO COMPEL DISCOVERY

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INTRODUCTION

In its answering brief, Samsung does not deny that the discovery ON Semiconductor seeks is "reasonably calculated to lead to the discovery of admissible evidence." Instead, Samsung claims that ON Semiconductor should have to explain "why those materials are ***necessary to*** any actual claim or defense in this action." (D.I. 99 at 4.)[1] That is not the correct standard, however. Under Fed. R. Civ. P. 26(b)(1), parties "may obtain discovery regarding any matter . . . that is ***relevant to*** the claim or defense of any party . . . [r]elevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence." ON Semiconductor's discovery requests not only are reasonably calculated to lead to the discovery of admissible evidence, but are central to the infringement allegations in this case. On this basis alone, ON Semiconductor's motion should be granted.

In addition, Samsung simply ignores key elements of each of the three categories of relevant information and documents ON Semiconductor seeks:

- ***Samsung does not dispute that circuit schematics are central to this case, but it has not produced them in complete format***. The schematics Samsung initially produced as TIFF images were incomplete and unreadable. Even the schematics Samsung purportedly "re-produced" in "electronic format," which ON Semiconductor received the same day Samsung's answering brief was due, continue to be deficient. Samsung simply "re-produced" the same circuit schematics in PDF or PS format, and did not produce complete schematics in their

[1] For simplicity, all citations to the record refer to docket entries in C.A. No. 06-720-JJF unless otherwise specified. Emphasis in bold is added unless otherwise noted.

native, navigable format that Samsung presumably uses in the ordinary course of business as ON Semiconductor requested. Samsung should be compelled to produce its complete schematic databases in native format together with programs and license keys.

- ***Samsung does not dispute that GDS2 databases provide technical information about the actual operation and layout of a circuit that cannot be ascertained from schematics***, such as the timing characteristics and functionality of a circuit. Acknowledging that ON Semiconductor should be able to "capture the timing information [it] need[s]" (D.I. 99 Ex. C), Samsung does not dispute that GDS databases provide exactly that.[2] Samsung should be compelled to produce GDS2 databases together with the programs and license keys.

- ***As to ON Semiconductor's '827 patent on electroplating methods, Samsung mischaracterizes the scope of ON Semiconductor's requests***. These requests seek key process flows and other documents "***sufficient to show***" Samsung's electroplating methods using any one of five specifically identified systems. (*See* D.I. 96 Ex. 2 at 13 (Request No. 110).) Thus, contrary to Samsung's assertions, ON Semiconductor seeks a narrowly defined set of documents. Although Samsung concedes that it uses one of the identified systems – the Novellus Sabre® System – Samsung has not produced anything more than three manuals and six

[2] Instead, Samsung argues that GDS2 databases "provide nothing relevant to the claims or defenses at issue that is not otherwise provided by the circuit schematics already produced." (D.I. 99 at 2.) That is incorrect and, in any event, not a proper basis to withhold relevant discovery.

purchase invoices, none of which describe how Samsung uses the Novellus Sabre® system. Samsung should be compelled to produce process flows and other documents responsive to this request.

- ***Samsung ignores that other legal or administrative proceedings involving the same accused products may contain admissions by Samsung*** as to the structure and functioning of its own products. Samsung should be compelled to produce documents concerning such proceedings.

ARGUMENT

I. SAMSUNG SHOULD BE COMPELLED TO PRODUCE SCHEMATIC AND GDS2 DATABASES SHOWING THE ACTUAL CIRCUITRY AND TIMING OF SAMSUNG'S ACCUSED PRODUCTS.

Attempting to cure the insufficiency of the limited TIFF images of schematics in its first production, Samsung "re-produced the circuit schematics" in different formats – PDF and PS – the same day Samsung's answering brief on this motion was due.[3] That production fixed nothing. Samsung continues to withhold the technical information and documents central to infringement, and to ignore the reasons ON Semiconductor has provided for their need. "It is not for Samsung to dictate to [patentee] what evidence it should and should not be able to rely upon to prove its case." *MOSAID Techs., Inc. v. Samsung Elecs. Co.*, No. 01-4340-WJM, 2004 U.S. Dist. LEXIS 23595, at *8-10, 15-16 (D.N.J. Oct. 1, 2004).

[3] One other set of schematics was produced in an unreadable .plt format.

A. Schematic Databases.

Despite the fact that these documents were first requested almost nine months ago, Samsung still has not produced its circuit schematics in their native format with the associated EDA tools. The schematics that Samsung "re-produced" in PDF/PS format, to which it refers as "electronic documents" (D.I. 99 at 6), are nothing more than the equivalent of paper print-outs of schematics. (*See* Walker Decl. ¶ 11.)[4] They are not navigable, and offer little information about the complex multimillion-transistor circuits Samsung makes. (*Id.*) Samsung does not even attempt to assert that it maintains its circuit schematics in PDF or PS format in the ordinary course of its business,[5] which is the standard format of production other courts have required in cases involving semiconductor technology similar to that at issue here. *See, e.g.*, *Cornell Res. Found., Inc. v. Hewlett Packard Co.*, 223 F.R.D. 55, 75 (N.D.N.Y. 2003) (ordering accused infringer to make available "technical drawings and specifications ***which it maintains in the ordinary course of its business in electronic format*** regarding the [accused] family of processors"); *see also Promos Techs., Inc. v. Freescale Semiconductor, Inc.*, No. 06-788-JJF (D. Del. Oct. 31, 2007) (Farnan, J.) (ordering production of "***electronic copies*** of the RTL [(Register Transfer Level) circuit design] documentation.") (D.I. 96 Ex. 10). Samsung's "re-produced" circuit schematics are inadequate for multiple reasons, among others:

- Unlike native circuit databases, which allow for the individual transistors, capacitors, resistors and electrical interconnections to be traced throughout and

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[4] Dr. Martin Walker provides in his declaration, filed contemporaneously herewith, additional background and explanation about the techniques for designing, manufacturing, simulating and analyzing semiconductor products, and why the requested documents are relevant to this case. (*See* Walker Decl. ¶¶ 7-15.)

[5] Sophisticated companies like Samsung do not maintain in the ordinary course of its business their technical design and analysis information in TIFF, PDF, or PS format – none of which are navigable for tracing the hierarchy of a circuit – but rather maintain this information in schematic and GDS2 databases. (*See* Walker Decl. ¶¶ 11-12, 14-15.)

between circuit blocks to understand circuit layout and functionality (Walker Decl. ¶¶ 9, 10), the PDF/PS schematics Samsung produced do not adequately show how the circuit blocks are connected any more than the original TIFF documents did. (*Compare* Bauer Decl. Ex. 1 (original TIFF image) *with* Bauer Decl. Ex. 2 ("re-produced" image).)

- As in Samsung's original TIFF production, some of the PDF/PS schematics do not have the resolution to be read completely. (*Compare* Bauer Decl. Exs. 1 & 3 (original TIFF image) *with* Bauer Decl. Exs. 2 & 4 ("re-produced" image).) This is not a problem in native circuit databases. (*See* Walker Decl. ¶¶ 9, 11.)

- As in Samsung's original TIFF production, some of the PDF schematics are truncated at their edges. (*Compare* Bauer Decl. Ex. 1 (original TIFF image) *with* Bauer Decl. Ex. 2 ("re-produced" image).) This, too, is not a problem in native circuit databases. (*See* Walker Decl. ¶ 9.)

- As in Samsung's original TIFF production, some of the PDF schematics have black markings that cover various parts. (*Compare* Bauer Decl. Ex. 5 (original TIFF image) *with* Bauer Decl. Ex. 6 ("re-produced" image).) All circuit components can be evaluated in spite of commentary in native circuit database format. (*See* Walker Decl. ¶ 9.)

- Most importantly, in no way do these images of schematics, ranging from 71 to 184 pages for each accused product, provide complete information about the multimillion transistor memory products accused of infringing. (Walker Decl. ¶ 12.)

In light of these limitations, Samsung's schematic databases are not duplicative of images Samsung has produced in TIFF, PDF, and PS format. *See Cornell Res Found.,* 223 F.R.D. at 73-74 (rejecting accused infringer's argument that because it had "produce[d] the requested information in tangible, hard copy format," producing "its 'highly confidential and proprietary'" electronic specifications "would be unduly cumulative," and holding that "[t]he mere fact that information which as a matter of ordinary course of one's business is electronically stored has been produced in functional equivalent, such as through hard copy, does not in and of itself excuse a party from producing the requested information in electronic form"); *see also 3Com Corp v. D-Link Sys.*, No. 03-2177-VRW, 2007 U.S. Dist. LEXIS 26540, at *7-9 (N.D. Cal. Mar. 27, 2007) ("Parties may not meet their obligations by pointing out that the

portion of materials thus far produced obviates the need for production of the remaining items in the requested category . . . Accordingly, [accused infringer's] argument that partial production demonstrates irrelevance of further production misses the mark") (citations omitted).

In fact, Samsung's own expert who purportedly "reviewed the electronic schematics produced by Samsung" does not assert that the schematics Samsung "re-produced" are sufficient, but generally opines that "[e]lectronic circuit schematics provide sufficient information to determine whether or not the accused products meet the limitations of the asserted claims."[6] (D.I. 99 (McAlexander Decl. ¶¶ 5-6).) He offers no explanation or support for that conclusory opinion. Samsung also does not deny that it has native schematic databases with programs and license keys, nor that they are the best way to evaluate the circuits at issue here. (*See* Walker Decl. ¶ 15.) Samsung should now be compelled to produce them.

B. GDS2 Databases.

Samsung should also be required to produce its GDS2 databases, which describe the physical layout and operation of the final real-world products, including a circuit's timing characteristics. (Walker Decl. ¶¶ 13-14.) Such information is directly relevant here, as one of ON Semiconductor's Circuit Patents relates to digital timing circuits. (*See* D.I. 1 Ex. A ('594 patent; 1:8-9) ("The present invention relates in general to digital timing circuits and, more particularly, to controlling the phase of a data transfer signal to set the proper timing for reading or writing to a data register.").)

Samsung's assertion that "throughout the meet-and-confer process, [ON Semiconductor was] unable to articulate any reason for demanding production of the GDS2

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[6] Even had Mr. McAlexander opined that Samsung's production is sufficient, "[i]t is not for Samsung to dictate to [patentee] what evidence it should and should not be able to rely upon to prove its case." *MOSAID*, 2004 U.S. Dist. LEXIS 23595, at *8-10.

database files in addition to the circuit schematics" is plainly incorrect. (D.I. 99 at 7, *see also id.* at 4.) ON Semiconductor provided several examples during the February 7 meet and confer and in its confirming letter. (Bauer Decl. Ex. 7.) It pointed out "[a]s an example of a function GDS2 information uniquely serves . . . GDS2 information ties circuitry to specific products." (*Id.*) As "a further example," ON Semiconductor explained that, unlike "purely theoretical" schematics, "GDS2 information provides actual timing, such that GDS2 layouts allow for post-layout parasitic extraction simulation of real world products to create actual timing diagrams." (*Id.*) Samsung acknowledged in its February 8 letter that ON Semiconductor should be able to "capture the timing information [it] need[s]." (D.I. 99 Ex. C). But Samsung has never disputed that its GDS2 databases provide this information.[7] (*Id*.)

Samsung's contention that GDS2 "documentation relating to manufacturing the accused products . . . provide[s] nothing relevant" is incorrect both as a matter of fact and law. (D.I. 99 at 2.) First, GDS2 data provides design information, detailing physical placement and interconnectivity of the circuitry. (Walker Decl. ¶ 13.) Such placement is not arbitrary but is instead crucial to the correct operation of a final product. (*Id*.) A foundry uses GDS2 information to manufacture a product but only after proper placement of the circuitry. (*Id*.)

Second, other courts have held that "manufacturing process documents may lead to the discovery of admissible evidence since product features are defined during the manufacturing process." *Alloc, Inc. v. Unilin Beheer B.V.*, No. 03-1266, 2006 WL 757871, at *3 (E.D. Wis. Mar. 24, 2006) ("Despite [accused infringer's] initial belief that [patentee] was not

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[7] Indeed, while Samsung's expert summarily concludes that "[e]lectric circuit schematics provide sufficient information," he does not dispute that GDS2 databases provide information relevant to this determination. (D.I. 99 (McAlexander Decl. ¶ 6).)

asserting any method claims, the manufacturing process documents are nevertheless relevant for purposes of discovery under Rule 26(b)(1)."); *see also Ropak Corp. v. Plastican, Inc*, No. 04-5422, 2006 WL 1005406, at *3 (N.D. Ill. Apr. 17, 2006) (granting motion to compel because "process documents may lead to the discovery of admissible evidence since product features are defined during the concept, design and manufacturing process").

Moreover, Samsung never explains how or why it would be burdensome to produce the native schematic databases it presumably maintains in the ordinary course of business. That this information is "highly proprietary" cannot limit ON Semiconductor's access to it, given that the parties explicitly agreed in the Stipulated Protective Order that "[i]n light of the high level of security afforded 'Highly Confidential – Outside Counsel Eyes Only' information, ***no party may withhold production of discoverable information solely on the grounds that such information is a trade secret***." (D.I. 88 at 13.) Samsung, therefore, should be compelled to produce the GDS2 databases with programs and license keys.

II. SAMSUNG SHOULD BE COMPELLED TO PRODUCE INFORMATION AND DOCUMENTS SHOWING ITS ELECTROPLATING METHODS.

ON Semiconductor seeks process flows and other documents relating to its '827 patent that are "***sufficient to show*** the electroplating methods OR procedures performed by SAMSUNG using the Applied Materials SlimCell ECP system, the ***Novellus Sabre® system***, the Semitool Raider™ ECD system, the Semitool Raider™ ECD310 system, OR the Semitool Equinox® system."[8] (*See* D.I. 96 Ex. 2 at 13 (Request No. 110).) Contrary to Samsung's

[8] A request limited to "documents sufficient to show" is not, as Samsung suggests, an "extremely broad discovery request." (D.I. 99 at. 9.) The requests at issue in the case Samsung cites involved entirely different subject matter and were far broader than the scope of ON Semiconductor's requests. *Standard Chlorine of Del., Inc., v. Sinibaldi*, 821 F. Supp. 232, 258 (D. Del. 1992) ("***all documents*** relating to any agreements, loads, (Continued . . .)

assertions, this request seeks a narrowly tailored set of documents about the use of five identified systems – one of which is admittedly relevant here, the Novellus Sabre® system. Notably, Samsung does not and cannot dispute that process flows ON Semiconductor seeks are the best descriptions of the steps used to manufacture semiconductors.

Although Samsung admits that it uses the Novellus Sabre® system, [redacted] (Bauer Decl. Ex. 8.) The only reason Samsung provides for withholding the requested process flows is that ON Semiconductor "must first at least identify" which products Samsung makes using the Novellus Sabre® system "[b]efore demanding documents." (D.I. 99 at 8.) But it makes no sense to require ON Semiconductor to make such a determination when it does not have access to the non-public information that only Samsung possesses. Surely Samsung knows how it manufactures its own products, and ON Semiconductor only requests documents "sufficient to show" those processes using the Novellus Sabre® system.[9]

Samsung's position also puts the cart before the horse, as such detailed infringement contentions "are often reserved for use at the end of discovery in order to crystallize the issues to be presented to the court, either on dispositive motion or at trial."

(. . . continued)

purchases, sales, transfers, commissions, transactions, contracts, deals, financing or any other professional or business relationship by and between [plaintiff] and [its parent company]" and "***all sales invoices, purchases invoices, or documents*** relating to operating expenses of Standard.")

[9] That Samsung may disagree that it infringes is not a basis to withhold discovery, as "[i]t is not for Samsung to dictate to [patentee] what evidence it should and should not be able to rely upon to prove its case." *MOSAID*, 2004 U.S. Dist. LEXIS 23595, at *8-10.

Cornell Res. Found., 223 F.R.D. at 66; *see also RR Donnelly & Sons Co. v. Quarck Inc.*, No. 06-0320-JJF, slip op. at 7 (D. Del. Jan. 04, 2007) ("Other courts have held that the goals of Rule 33(b) are best met when contention interrogatories are fully answered, after 'a substantial amount of discovery has been conducted.'") (citations omitted) (Bauer Decl. Ex. 9); *Wesley-Jessen Corp. v. Pilkington Visioncare, Inc.*, 844 F. Supp. 987, 990 (D. Del. 1994) (ordering detailed infringement contentions only after document discovery had been ongoing for some time).[10] Indeed, in the reciprocal situation, Samsung has made clear that it does not believe ON Semiconductor's production should be limited to the two products made by the process Samsung has accused of infringing its patent, and ON Semiconductor has not limited its productions to them. (D.I. 96 Ex. 9 at 2.)

Finally, Samsung conveniently ignores the fact that it was Samsung, not ON Semiconductor, who first brought the issue of Samsung's infringement of the '827 patent before this Court. Because Samsung has exclusive control over the details concerning its manufacturing methods, Samsung should not be permitted to hide the very documents that will demonstrate whether Samsung's use of the identified Novellus Sabre® system infringes this patent. Samsung has never denied that the requested process flows are reasonably calculated to lead to the discovery of admissible evidence and, therefore, should be compelled to produce them.

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[10] The sole case Samsung cites for this argument states that infringement contentions and document production are "not a *quid pro quo*." (D.I. 99 Ex. E at 9:3.)

III. SAMSUNG SHOULD BE COMPELLED TO PRODUCE DOCUMENTS CONCERNING THE LEGAL OR ADMINISTRATIVE PROCEEDINGS INVOLVING THE SAME ACCUSED PRODUCTS.

In its answering brief, Samsung simply ignores many of the reasons ON Semiconductor proffered as to the relevance of the requested documents. For example, Samsung does not address, let alone deny, that there may be discussions in other proceedings about the structures of the accused products, or statements about them, unencumbered by the positioning in these cases, that may constitute admissions in this case. Nor does Samsung attempt to refute ON Semiconductor's argument that statements about the sales or marketing of those products may be relevant to damages in here.[11]

Samsung should be compelled to produce at the very least all pleadings, hearing transcripts, motions, briefs, deposition transcripts, expert reports, invalidity charts, prior art, produced schematics, GDS2 data, process flows, simulations, and reverse engineerings from other adversarial proceedings that discuss the accused products in this case.

[11] Samsung implies that ON Semiconductor raised its contention that these documents may be relevant to damages for the first time in its opening brief, but ON Semiconductor explained this point to Samsung prior to filing this motion. (*See* D.I. 96 Ex. 9.)

CONCLUSION

For the foregoing reasons, ON Semiconductor's motion to compel discovery should be granted.

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CERTIFICATE OF SERVICE

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